

ABSTRACT

A method and system for processing a plurality of multi-bit configuration words for configuring a programmable logic device. One or more of bits of the multi-bit configuration words are identified as "Don't Care" configuration bits that do not affect the functionality of the programmable logic device. These "Don't Care" configuration bits may or may not be related to the specific configuration of the programmable logic device. A lossy compression operation is performed on the multi-bit configuration words thereby creating a compressed data set. The identified "Don't Care" configuration bits are used during the compression operation. For example, the compression operation may include (1) maintaining a compression buffer of previously compressed configuration words, and (2) comparing configuration words to be compressed with the configuration words in the compression buffer, wherein the "Don't Care" configuration bits are deemed to result in matches during the comparison.